

WHAT IS CLAIMED IS:

1. A dynamic supinated splint comprising a splint body comprising an axis having a first strap for fixing a first part of an arm to the splint body and a second strap for fixing a second part of the arm to the splint body; the splint body further comprising first anchor and a second anchor and an outrigger comprising two generally vertical sections and a generally horizontal section disposed in between the first anchor and the second anchor and having an end of each of its vertical sections secured to the splint body such that the outrigger transects the axis of the splint body; wherein a force generator is engaged to the first anchor and the second anchor at its two ends and is expanded at a point in between its two ends by the horizontal section of the outrigger to provide a torque to the splint body.
2. The dynamic supinated splint as recited in claim 1, where the horizontal section of the outrigger comprises a length that is less than a length of either vertical section of the outrigger.
3. The dynamic supinated splint as recited in claim 2, wherein the end of each vertical section is formed from bending a portion of each vertical section.
4. The dynamic supinated splint as recited in claim 1, wherein the splint body comprises a proximal section, the proximal section comprising a curved section extending laterally the axis of the splint body.
5. The dynamic supinated splint as recited in claim 4, wherein the curved section terminating just distal of a lateral epicondyle and partially covering at least a portion of a radius and ulna of a forearm when the splint is worn by a subject.
6. The dynamic supinated splint as recited in claim 5, wherein the second strap connects the curved section with the axis portion of the splint body.
7. The dynamic supinated splint as recited in claim 6, further comprising a third strap disposed in between the first strap and the second strap.
8. The dynamic supinated splint as recited in claim 6, wherein the two straps each comprises a hook strap component and a loop strap component.
9. The dynamic supinated splint as recited in claim 7, wherein the three straps each comprises a hook strap component and a loop strap component.

10. The dynamic supinated splint as recited in claim 1, wherein the splint body comprises a distal hand support section comprising two folded flaps configured to cover a first metacarpal and a fifth metacarpal, or at least a portion thereof, when the splint is worn by a subject.

5

11. The dynamic supinated splint as recited in claim 10, wherein the distal hand support portion further comprises an opening having an area forming part of one of the two folded flaps.

10

12. The dynamic supinated splint as recited in claim 1, wherein the force generator comprises a rubber tube.

15

13. The dynamic supinated splint as recited in claim 12, wherein the rubber tube is bent at approximately a center section and tied at a loose end of the rubber tube to form a loop.

14. The dynamic supinated splint as recited in claim 13, wherein the tied end and the bent section are attached to the first and second anchors.

20

15. The dynamic supinated splint as recited in claim 1, wherein the splint body is made from a polymer.

25

16. The dynamic supinated splint as recited in claim 15, wherein the polymer is a polycaprolactone base made from Aquaplast®.

17. The dynamic supinated splint as recited in claim 16, wherein the splint body is made from a 1/8" thick sheet of Aquaplast® splint material.

30

18. The dynamic supinated splint as recited in claim 1, wherein the two straps comprise straps made from Velcro®.

35

19. The dynamic supinated splint as recited in claim 1, further comprising a distal hand support section, said distal hand support section comprising a distal end bend in a proximal direction for eliminating sharp edges.

20. A dynamic supinated splint comprising a splint body comprising a proximal end, a distal end and an axial shaft; a hand support section on the distal end comprising two folded flaps configured to cover a first metacarpal and a fifth metacarpal, or at least a portion thereof, when worn by a subject; a forearm support section comprising a curved section

extending laterally of the axial shaft, the curved section terminating just distal of a lateral epicondyle and partially covering at least a portion of a radius and ulna of a forearm when the splint is worn by the subject; and a force generator comprising two ends mechanically coupled to the splint body for generating a torque to the splint body.

5

21. The dynamic supinated splint as recited in claim 20, wherein the force generator is mechanically coupled to two anchors, which are secured to the splint body.

10

22. The dynamic supinated splint as recited in claim 20, wherein the force generator is made from a rubber tube.

15

23. The dynamic supinated splint as recited in claim 22, wherein the rubber tube is bent at approximately a center section and tied at a loose end of the rubber tube to form a loop.

24. The dynamic supinated splint as recited in claim 23, wherein the tied end and the bent section are attached to the two anchors.

20

25. The dynamic supinated splint as recited in claim 20, wherein the splint body is made from a polymer.

26. The dynamic supinated splint as recited in claim 25, wherein the polymer is a polycaprolactone base made from Aquaplast®.

25

27. The dynamic supinated splint as recited in claim 26, wherein the splint body is made from a 1/8" thick sheet of Aquaplast® splint material.

30

28. The dynamic supinated splint as recited in claim 20, further comprising an outrigger, the outrigger comprising a generally horizontal section and two generally vertical sections.

29. The dynamic supinated splint as recited in claim 28, wherein the two generally vertical sections are attached at a base of each vertical section to the splint body.

35

30. The dynamic supinated splint as recited in claim 29, wherein each attached base comprises a bent section of each generally vertical section.

31. The dynamic supinated splint as recited in claim 30, wherein the attached base is each attached to the splint body by a patch of splint material.

32. The dynamic supinated splint as recited in claim 20, further comprising a plurality of straps connected to the splint body, each strap comprising a hook component and a loop component.

5

33. A dynamic supinated splint comprising a longitudinal splint body comprising a central shaft made from a pliable splint material, the splint body comprising a distal hand support section comprising two flaps rolled inwardly toward the central axis of the longitudinal splint body, an opening at the distal hand support section having an area forming part of one of the two flaps; an undulating section on part of the longitudinal splint body; and a proximal forearm support section comprising a curved section having a portion arced laterally from the longitudinal splint body; wherein a distal anchor and a proximal anchor are coupled to the splint body and a force generator comprising two ends coupled to the two anchors to provide a force to create a bending moment on the longitudinal splint body.

10

15

34. The dynamic supinated splint as recited in claim 33, wherein the pliable splint material comprises one of Aquaplast®, Aquaplast®-T, and Aquaplast® Watercolors.

35. The dynamic supinated splint as recited in claim 33, wherein the force generator comprises a rubber tube.

20

36. The dynamic supinated splint as recited in claim 33, wherein the distal anchor and the proximal anchor are each made from rolling a patch of splint material into a V-shape body.